Comments Submitted by Jonathan Grant, Vice President, Battenkill Technologies, Inc. , on the draft SAB report *Efficacy of ballast water treatment systems; A Report by the EPA Science Advisory Board (May 2011 Draft)*.

Overall, this is a well-considered and valuable document to the ballast water management community and stakeholders. As a participant in the development of and an author of the current ETV protocol, I would like to offer the following comments with regards to the passages cited below.

Pg 4, lines 18-21: "The Panel concluded that the same five BWMS categories (listed above) have been demonstrated to meet the IMO D-2 discharge standard, when tested under the IMO G8 19 guidelines, and will likely meet USCG Phase 1standards, if tested under EPA's more detailed Environmental Technology Verification (ETV) Protocol (EPA, 2010)."

Pg 5, lines 6-8: "…the lack of detailed information on the great majority of BWMS precludes an assessment of limitations in meeting any or all discharge standards."

These two statements are in conflict. This report acknowledges a lack of observable data from BWMS type approval testing to date (i.e., the details of testing protocols employed, QA/QC processes for data quality assurance, statistical analysis of measurement accuracies, and documentation of detection limits achieved by the test facility), so the ability to measure live organism counts with meaningful accuracy at the proposed D-2 (or USCG P-1) discharge standards has not been rigorously established. No detection limit has been cited in the discussion on pg 47, line 16, and I pose the question: is there a detection limit that has been validated to the satisfaction of the SAB by *any* test facility that is suitable for accurate measurement at the proposed regulatory standards? Given the discussion provided in Section 4.6, I must disagree with the SAB conclusion that the currently approved systems will likely meet D-2 / P-1 regulatory limits if tested to the ETV protocol.

In addition, Section 6.2 does not address the need for test facilities to validate a facility specific test detection limit for each requisite size class based on the protocols employed. As a "lesson learned" from review of available test data, I submit that the validated detection limits by size class should be cited by any test facility generating data used to measure and validate BWMS performance.